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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------------------|-----------------------------|
| 10/566,467 | 08/04/2006 | Atsushi Otaki | 284931US90PCT | 3857 |
| 22850 | 7590 | 03/10/2008 | | |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER TOLAN, EDWARD THOMAS | |
| | | | ART UNIT 3725 | PAPER NUMBER |
| | | | NOTIFICATION DATE 03/10/2008 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/566,467 | Applicant(s) OTAKI ET AL. | |
| | Examiner EDWARD TOLAN | Art Unit 3725 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Allison (3,198,928). Allison discloses a forging method and apparatus for swaging a scheduled enlarged diameter portion (30) of a bar raw material (11) fixed to a fixing die (14). A guide (19) having a passage (20) for inserting and holding the raw material (column 2, lines 39-42) is movable in a direction opposite to a punch (15) by moving means (25,26,27, column 2, lines 28-36). As the punch (15) presses the material (11) the enlarged portion (30) is formed against the restrained portion of the fixing die so that the enlarged portion (30) exposed between the fixing die (14) and guide (19) is formed to a desired shape. Figure 2 shows an initial clearance between the die and guide. A volume of material needed to form a diameter of the portion (30) is controlled by the movement of the guide with a time lag for the heating of the material prior to punch pressure being provided. Allison discloses (column 1, lines 42-46) that a rate of guide movement and material shape is controlled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-12 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allison (3,198,928) in view of Sekiguchi et al. (5,475,999). Allison does not disclose that the fixing die has a restraining die portion comprising a second punch. Sekiguchi teaches (fig. 18) fixing die (25) for restraining an enlarged portion of bar stock (6) formed against it by punch (24). In (figure 22, column 15, lines 60-67) Sekiguchi teaches using die (25) as a second punch actuated by cylinder (30) to control a volume of material formed. It would have been obvious to one skilled in the art at the time of invention to substitute the movable fixing die means as taught by Sekiguchi for the fixed restrained die of Allison in order to adjust a shape of the swaged portion.

Allowable Subject Matter

Claims 5-8 are allowed. The prior art of record does not disclose wherein G (an average moving speed of the guide) is satisfied by the relational expression required by claim 5.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hanna (2,495,060) discloses restraining die (1) that is a damper movable in response to an enlarged portion of rod (4) formed by a punch (2).

Any inquiry concerning this communication should be directed to Ed Tolan whose telephone number is 571-272-4525. FAX communications should be sent to 571-273-8300.

/Edward Tolan/

Primary Examiner, Art Unit 3725